

## Reexamination of the Met-Expectations Hypothesis: A Longitudinal Analysis

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On the basis of their recent meta-analysis, J. P. Wanous, T. D. Poland, S. L. Premack, and K. S. Davis (1992) concluded that confirmation of newcomers' preentry expectations has a substantial impact on their work attitudes and behaviors. However, methodological problems inherent in many of the individual tests of the met-expectations hypothesis give cause to question this conclusion. In this longitudinal study, response surface methodology was used to examine the separate and joint contribution of expectations and experiences to the prediction of job satisfaction, organizational commitment, and intention to leave during the first year of employment. The findings provided only modest support for the met-expectations hypothesis and suggest that to improve attitudes and lower turnover intentions, it is advisable to focus more on providing positive work experiences than on confirming expectations.

Recently, Wanous, Poland, Premack, and Davis (1992) conducted a meta-analysis of the effects of met expectations on newcomers' attitudes and behaviors. The met-expectations hypothesis suggests that confirmation of employees' preemployment expectations about the nature of their jobs leads to higher levels of job satisfaction and organizational commitment and reduced likelihood of turnover (Porter & Steers, 1973; Wanous, 1977, 1980, 1992). Conversely, it is argued that failure to confirm expectations can produce "reality shock" (Dugoni & Ilgen, 1981) that, in turn, results in lower levels of satisfaction and commitment and increased turnover.

Consistent with the met-expectations hypothesis, Wanous et al.'s (1992) meta-analysis yielded mean correlations with met expectations, corrected for attenuation because of unreliability, of .39 for both job satisfaction and organizational commitment and .29 for intent to remain. By implication, then, they suggest that it should be possible to improve work attitudes and reduce the likelihood of turnover by ensuring that employees' preentry expectations are confirmed. Following Porter and Steers (1973), Wanous et al. argued that one method of increasing the likelihood that expectations will be met would be for organizations

to lower expectations prior to entry by means of recruitment practices such as the use of realistic job previews (RJPs). By lowering expectations, the chance of experiencing reality shock is presumably diminished, and as a result, employees should experience less dissatisfaction and be less inclined to leave the organization.

Although it might appear from Wanous et al.'s (1992) results that confirmation of expectations is an important determinant of job satisfaction, organizational commitment, and turnover intentions, there were methodological problems inherent in many of the studies included in their meta-analysis. Consequently, it is difficult to draw firm conclusions about the meaning and implications of their findings. This, combined with the fact that the met-expectations hypothesis has been criticized on theoretical grounds (e.g., Miceli, 1986), suggests a need for additional research. In this article, we discuss the methodological difficulties in previous met-expectations research and describe several theoretical perspectives regarding the potential influence of preentry expectations on postentry work attitudes and behavior. We then present the results of a study in which we attempted to test these hypotheses using a methodology that avoids many of the difficulties inherent in previous research.

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### Methodological Issues in Met-Expectations Research

Many of the problems encountered in met-expectations research are similar to those identified recently by Edwards (1991) in his critique of person-job (P-J) fit research. In this section, we will briefly outline some of the major problems discussed by Edwards and show how they relate to met-expectations research. We will also describe how the methodology recommended by Edwards to examine the influences of P-J fit can be applied in the study of the effects of met expectations.

One problem with P-J fit research discussed by Edwards (1991) concerned the use of difference scores and summary indexes of P-J fit (e.g., correlations between P and J). Johns (1981) pointed out that the use of difference scores to assess P-J fit

may contribute to artifactual relations with outcome variables because such scores tend to be systematically correlated with their component parts (cf. Cronbach & Furby, 1970). Furthermore, difference scores and summary indexes of P-J fit are not typically subjected to tests of construct validity. Cronbach and Furby pointed out that

the claim that an index has validity as a measure of some construct carries a considerable burden of proof. There is little reason to believe and much empirical reason to disbelieve the contention that some arbitrarily weighted function of two variables will properly define a construct. (p. 79)

Edwards added that algebraic difference scores contain no information beyond that provided by the components used in their computation. He also noted that difference scores are often summed to form overall fit indexes. Such indexes collapse conceptually distinct job dimensions that may relate differently to the criterion variable of interest, further confounding their interpretation.

The use of difference scores can be expected to create similar problems in the study of met expectations. Although the use of such scores has not been as prevalent in the met-expectations literature as in the P-J fit literature, in at least one study reviewed by Wanous et al. (1992), Fisher (1985) created a single index of unmet expectations by calculating difference scores between expectations prior to entry and postentry perceptions of the job and summing across job-content dimensions.

A related issue raised by Edwards (1991) concerned the use of direct measures of P-J fit. For example, a direct measure of P-J fit might require that respondents indicate the degree to which they perceive that their needs have been satisfied on the job. Edwards suggested that, although measures of this type are intended to circumvent the problems associated with difference scores (cf. Wall & Payne, 1973), there is no guarantee that individuals do not "implicitly or explicitly calculate the difference between the relevant person and job dimensions in the process of providing a response" (p. 331). As such, these measures do not avoid the problems inherent in the use of difference scores. For example, use of these measures does not allow one to determine whether the outcome measure (e.g., satisfaction) is related to one or both of the components that went into the mental calculation of perceived fit (cf. Dugoni & Ilgen, 1981; Greenhaus, Seidel, & Marinis, 1983).

In the case of met expectations, a direct measure of expectation confirmation would require that respondents indicate the extent to which they perceive that their expectations have been met on the job. A number of the studies included in Wanous et al.'s (1992) review used single item (e.g., Arnold & Feldman, 1982) or multi-item (e.g., Farkas & Tetrick, 1989; Lee & Mowday, 1987; Michaels & Spector, 1982; Reilly, Brown, Blood, & Malatesta, 1981; Stumpf & Hartman, 1984; Suszko & Breaugh, 1986) measures of confirmed expectations. Wanous et al. acknowledged that direct measures of met expectations are problematic and recommended that future met-expectations research use a longitudinal design in which preentry expectations and postentry perceptions are measured independently. In this way, the separate and combined effects of expectations and perceptions can be determined (cf. Dugoni & Ilgen, 1981).

Finally, Edwards (1991) noted that to test the P-J fit hypotheses adequately it is important to use commensurate measures. That is, the person and job measures should be expressed in terms of the same content dimensions (cf. Caplan, 1987; Graham, 1976). Without commensurate measures, one cannot adequately determine the degree of match between employees and job characteristics. The same arguments apply in the case of met-expectations research. Unless commensurate measures of expectations and experiences are used, it is not possible to determine whether expectations have been met. Although the use of noncommensurate measures has not been a major issue in met-expectations research because of the reliance on direct measures, it is important that researchers in this area be aware of the importance of commensurate measures if they follow the advice of Wanous et al. (1992) to measure expectations and experiences independently over time.

To summarize, Edwards (1991; Edwards & Cooper, 1990) has outlined a number of methodological problems in the P-J fit literature that also apply to the met-expectations literature. Specifically, he has suggested that there are serious problems with the use of difference scores, direct measures, and measures that collapse across constructs. He also emphasized the importance of using commensurate measures of person and job constructs so that the degree of match can be determined. In response to these problems, Edwards (1991; Edwards & Cooper, 1990) recommended the use of analytical techniques such as response surface methodology (Myers, 1971; Neter, Wasserman, & Kutner, 1989) in the analysis of the relationship between the person, the job, and outcomes. This approach uses hierarchical multiple regression analysis and allows for an examination of the shape of the surface reflecting relations among the person, job, and outcome measures. Although a regression equation can be specified to reflect a variety of linear, nonlinear, and interactive effects of predictors on outcomes, Edwards recommended the application of the following equation:

$$\text{Outcome} = B_0 + B_1P + B_2J + B_3P^2 + B_4J^2 + B_5P \times J + e, \quad (1)$$

where  $B_1$  reflects the linear effect of the person variable,  $B_2$  reflects the linear effect of the job variable,  $B_3$  reflects the nonlinear effect of the person variable,  $B_4$  reflects the nonlinear effect of the job variable, and  $B_5$  reflects the interactive effect of the person and job variables. Edwards (1991; Edwards & Cooper, 1990) also recommended that the higher order terms be entered as a set after controlling for the person and job variables. This approach allows for an examination of the increment in variance explained by the higher order terms and eliminates the reliance on difference scores.

Whereas the commonly used fit indexes described previously present the relationship between P-J fit and outcome variables in two dimensions (fit and outcome), techniques such as response surface methodology conceptualize this relationship in three dimensions, thereby preserving the integrity of the person, job, and outcome constructs (Edwards, 1991). The application of response surface methodology also allows the researcher to examine the surface relating the person, job, and outcome constructs as proposed by different models. That is, each model will predict a different pattern of significant regression coefficients and corresponding response surfaces.

In the following section, we will describe how the methodology can be used to detect relations identified in the met-expectations hypothesis as well as in other hypothetical models. For each of these models, we will outline a set of hypotheses about the ways in which work attitudes and behaviors might be affected by expectations and experiences, and we will describe the pattern of results from the regression analyses that would be required to support these hypotheses. These patterns are summarized in Table 1 and are illustrated in Figure 1.

### Hypothetical Influences of Expectations and Experiences on Work Attitudes and Behavior

#### *Met-Expectations Model*

Porter and Steers's (1973) definition of the met-expectations hypothesis suggested that it is the discrepancy between what individuals encounter on the job and what they expected to encounter that affects their propensity to withdraw (and presumably, their organizational commitment and job satisfaction). Met expectations are thus operationalized as an algebraic difference between postentry experiences and preentry expectations. Such a model suggests that commitment, satisfaction, and intention to remain increase as a function of positive work experiences. However, as one's expectations increase, the mean work attitude and behavior scores decrease accordingly (see Figure 1a). As Edwards (1991; Edwards & Cooper, 1990) has demonstrated, empirical support for such an algebraic difference model would be provided by significant expectations and experience main effects that are equal and opposite in sign (negative for expectations and positive for experiences).

#### *Moderation Model*

Previously, we noted that there are similarities between the P-J fit and met-expectations literatures. On the basis of these similarities, we have derived an alternative model from the P-J fit literature that might describe the relations between preentry expectations, postentry experiences, and work attitudes and behavior. According to this model, expectations might moderate the effect of work experiences. That is, expectations might serve as a standard against which a newcomer judges the job, such that positive work experiences have a stronger effect on work

attitudes for individuals who have lower initial expectations (standards for comparison) than for those with higher expectations. For example, if individuals are given recognition for good performance, that experience might have a greater impact on work attitudes if it is unexpected than if it is expected. Support for this moderation model would be indicated in the regression analysis by a significant and negative coefficient for the interaction term. The coefficients for the main effect terms may or may not be significant. Figure 1b illustrates what the response surface would look like if the experience variable itself was positively related to the outcome (i.e., there is an experiences main effect) but the relation is moderated by expectations as outlined above.

#### *Main-Effect Models*

Finally, it is possible that expectations and experiences do not interact to influence work attitudes and behavior. Rather, expectations, experiences, or both might have independent effects on these outcome variables. That is, there might be a main effect for expectations, a main effect for experiences, or both. For example, Pulakos and Schmitt (1983) reported that expectations were positively related to job satisfaction. On this basis, the authors concluded that "satisfaction is predictable at hire by knowing what outcomes individuals believe they will obtain from work" (Pulakos & Schmitt, 1983, p. 310). These findings might be interpreted as supporting the expectations main-effect model. The response surface for the expectations main-effect model is presented in Figure 1c. Others (e.g., Miceli, 1986) have suggested that, although expectations might be positively related to work adjustment in the short term, such relations diminish with the passage of time.

Miceli's (1986) fadeout model suggests that the effects of expectations decrease over time as coworker cues and direct job experiences become more powerful in determining newcomers' work attitudes and propensity to remain on the job. The regression coefficient for expectations is predicted to be positive during the initial stages of the job because the way that people respond to their environment is shaped, in part, by their expectations (Miceli, 1985; see also Meyer, Bobocel, & Allen, 1991). However, the fadeout model also predicts that the regression coefficient for the experience variable will be significantly larger than the beta for expectations and in the same direction (positive). As time on the job passes, it is predicted that the regression coefficient for expectations should approach zero, because job experiences become more salient, and expectations contribute less unique variance to the prediction of job attitudes. If the fadeout model is correct, the regression coefficient for the experiences measure should be significant and positive, whereas the regression coefficient for the expectations measure should be positive but smaller than the former. With the passage of time, the regression coefficient for the expectations measure should become zero.

It is also possible that preentry expectations have no significant relations whatsoever with work attitudes and behavior independent of their relation to actual work experiences. Rather, an experiences main-effect model would predict that only the postentry experiences are significantly related to work adjust-

Table 1  
*Expected Pattern of Coefficients in Regression Analyses for Models Tested*

Model	P	J	P <sup>2</sup>	J <sup>2</sup>	P × J
Algebraic difference <sup>a</sup>	–	+	0	0	0
Negative moderation (with experience main effect)	0	+	0	0	–
Experience main effect	0	+	0	0	0
Expectation main effect	+	0	0	0	0

Note. The person (P) variable is preentry expectations, and the job (J) variable is postentry experiences.

<sup>a</sup> Coefficients for P and J should be roughly equal in magnitude.

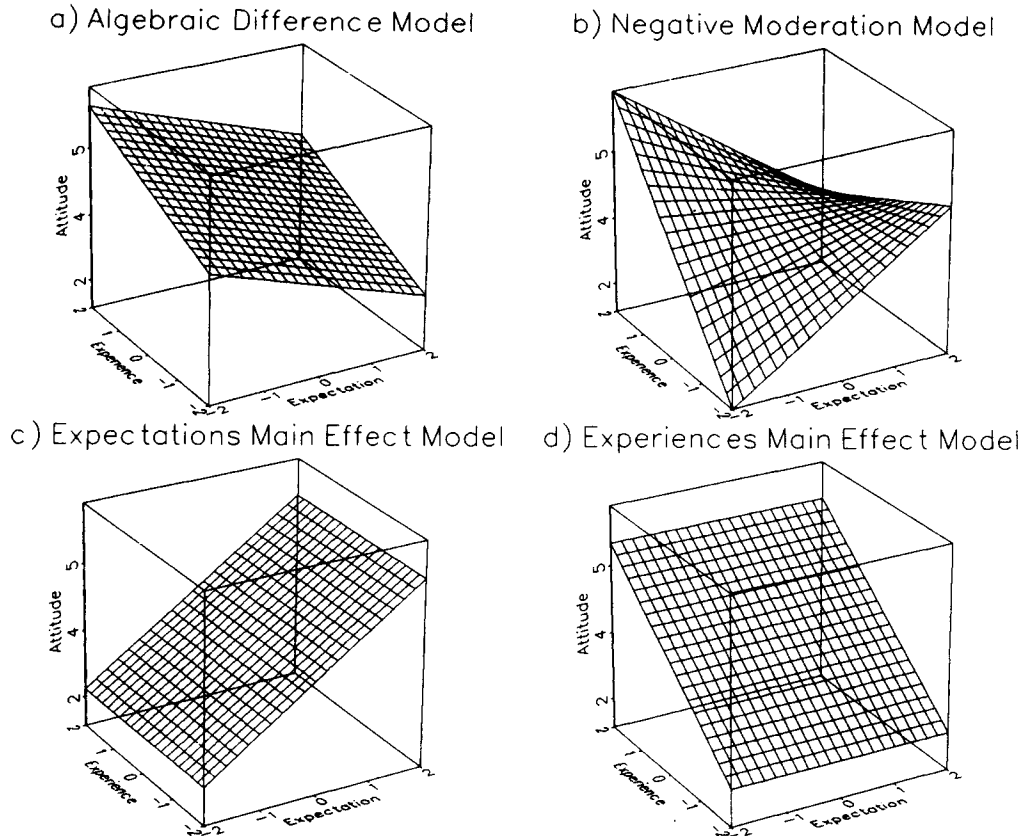


Figure 1. Response surfaces for four theoretical models of the relations between expectations, experiences, and work attitudes.

ment (see Figure 1d). Some researchers (e.g., Dugoni & Ilgen, 1981; Rynes, 1991) have suggested that the relations between expectations and work attitudes are minimal after controlling for postentry experiences. Regarding the effects of realistic recruitment, Rynes (1991) suggested that "the actual characteristics of the job and organization probably swamp the effects of realism manipulations" (p. 428). The distal nature of preentry expectations makes them less likely to affect postentry work adjustment than the more proximal early and later work experiences (Vandenberg & Seo, 1992).

Although the models described above assume linear relations between the predictor and criterion variables, it is possible that these relations are nonlinear. If the relations of experiences to work attitudes are nonlinear, the quadratic term for experiences should be significant. One possibility is that, as positive work experiences increase, work attitudes increase at a decreasing rate. In this instance, the regression coefficient for experiences should be positive and significant, whereas the regression coefficient for the experiences quadratic term should be negative and significant (Aiken & West, 1991). If, alternatively, scores on the work attitude variables are highest when scores on the experiences variable are moderate and decrease as experience scores become more extreme, the regression coefficient for experiences should not be significant and the regression coefficient

for the experience quadratic term should be significant and positive. In this instance, the relationship between experiences and work attitudes would be in the form of an inverted U.

### The Present Study

The purpose of this study was to test the met-expectations hypothesis while addressing the methodological issues outlined by both Wanous et al. (1992) and Edwards (1991). We also tested several other models (i.e., experience main-effect and moderation models) that potentially describe the joint influence of preentry expectations and postentry work experiences on work attitudes and behavior. Although we make no specific predictions concerning the outcome, by examining the pattern of regression coefficients, we can evaluate each of the models described above. To summarize, the met-expectations (algebraic difference) model would be supported by significant regression coefficients for expectations and experiences that are equal and opposite in sign. The negative moderation model would be supported by a significant and negative regression coefficient for the interaction or product term of expectations and experiences. Finally, the main-effect expectations and main-effect experiences models would be supported by significant regression coefficients for the expectations and experiences variables, respec-

tively. The expectations of new employees regarding 25 aspects of the job (Manhardt, 1972) were measured prior to organizational entry, and work experiences, organizational commitment, job satisfaction, and intention to leave were measured at 1 month, 6 months, and 1 year after organizational entry. Response surface methodology was used to examine the separate and joint effects of preentry expectations and postentry work experiences on work attitudes and turnover intentions.

## Method

### *Participants and Data Collection Procedures*

Participants in this study were recruited from Honors and Master of Business Administration graduates (MBAs), as well as students graduating from the arts and science program at a large Canadian university. Those individuals who had secured full-time employment were asked to participate in a longitudinal study of work attitudes. Of the 334 individuals who agreed to participate, 257 (161 men and 96 women) completed and returned the preentry questionnaire with usable data. The majority were under 30 years of age (92%) and were unmarried (83%). All participants had undergraduate degrees, and 73 had graduate degrees. Most (80%) were starting employment with large organizations (more than 500 employees) in various industries.

In addition to the preentry questionnaire, we mailed questionnaires to participants 1, 6, and 12 months after they had begun work with their respective organizations. For these postentry questionnaires, usable data were obtained from 232, 197, and 146 individuals, respectively. To ensure comparability of analyses across time lags, only data from those individuals who completed all four questionnaires were included in the major analyses. Furthermore, data for 9 individuals were excluded from the analyses because they had previously worked full-time for their current employer. Therefore, the analyses conducted were based on a total of 137 individuals. Participants left the study for a variety of reasons including lack of interest, moving without leaving a forwarding address, and terminating employment. A comparison of those individuals who completed all four questionnaires with those who did not on demographic characteristics, job characteristics, and preentry expectations indicated that with the exception of starting salaries, which were higher for the former, there were no significant differences.

### *Measures*

**Expectations and work experiences.** We created measures of preentry expectations and postentry experiences by modifying a measure of work-relevant values that was developed by Manhardt (1972). Manhardt identified 25 aspects of work that are of potential relevance (e.g., provides job security, provides a feeling of accomplishment) to the prediction of work attitudes and behavior. We assessed expectations by asking participants how likely it was that their job would provide the 25 job attributes from Manhardt's scale. Responses to these items were made on 5-point scales (1 = *extremely unlikely* and 5 = *extremely likely*). We measured experiences by asking respondents to assess the extent to which each attribute was characteristic of the job they were performing (1 = *not at all* and 5 = *a great deal*).

**Organizational commitment.** Commitment was measured at 6 and 12 months using the 8-item Affective Commitment Scale (for items and psychometric information, see Allen & Meyer, 1990, and Meyer, Allen, & Gellatly, 1990). Responses were made on a 7-point agree-disagree scale and were averaged to yield commitment scale scores (coefficient alphas = .83 and .86 at 6 and 12 months, respectively).

**Job satisfaction.** Job satisfaction was measured at 6 and 12 months with two items used in previous research by Meyer and Allen (1988):

"All things considered, how satisfied are you with your job?" and "Considering all of the jobs you might realistically have at this point in your career, how does your current job compare?" Responses to these items were made on 7-point scales and were averaged to yield global satisfaction scores (coefficient alphas = .87 and .89 at 6 and 12 months, respectively), with high scores indicating greater satisfaction.

**Intention to leave.** Turnover intention was measured at 6 and 12 months by two items ("How likely is it that you will actively look for work in a different organization within the next year?" and "How likely is it that you will leave your organization within the next year?"). Responses to these items were made on 7-point scales (1 = *extremely unlikely* and 7 = *extremely likely*) and were averaged to yield an intention to leave measure (coefficient alphas = .97 and .95 at 6 and 12 months, respectively), with high scores indicating a greater propensity to leave the organization.

### *Analysis*

We first conducted a principal-components analysis (with varimax rotation) of expectations ratings made prior to entry. The purpose of this analysis was to identify the dimensions underlying people's expectations. We also used the results to create commensurate measures of work experiences. Because we wanted to provide a broad base for scale reliability, these analyses were conducted using the data from all 257 individuals who completed the preentry questionnaire.

Next, we calculated met-expectations indexes for each of the predictor variables derived from the principal-components analysis using difference scores and correlated them with our dependent measures. These correlations were calculated for the 1- to 6-month, 1- to 12-month, and 6- to 12-month time lags. We then calculated first-order partial correlations controlling for the effects of the expectations component of these met-expectations indexes. First-order partial correlations controlling for the effects of the experiences component of the met-expectations indexes were also calculated. The purpose of these analyses was to determine whether such indexes contributed information about the effect of confirmed expectations on work adjustment beyond that provided by the components that go into their calculation (cf. Edwards, 1991).

Finally, following procedures recommended by Edwards (1991; Edwards & Cooper, 1990), we conducted hierarchical multiple regression analyses to identify the response surfaces that best reflected the relations between the outcome measures (i.e., organizational commitment, job satisfaction, and turnover intentions) and the relevant expectations-experiences combinations. The expectations and experience variables that were developed on the basis of the results of the principal-components analysis were entered at Step 1. These predictor variables were centered (i.e., the mean was subtracted from raw scores) prior to analysis to minimize the problems associated with multicollinearity (Aiken & West, 1991; Neter et al., 1989). The two quadratic terms and the Expectations  $\times$  Experiences interaction term were entered at Step 2. To reduce the problems associated with the use of self-report measures (e.g., consistency effects), analyses were conducted only with predictor and criterion data obtained on different occasions. That is, work attitude and turnover intention measures obtained after 6 and 12 months were used as criterion variables, and work experiences measured on earlier occasions and expectations measured prior to entry were used as predictors. Consistent with Edwards's (1991) recommendations, we only attempted to interpret the results of analyses in which a significant proportion of the variance is accounted for by the predictor variables.

## Results

### *Principal-Components Analyses*

Although the principal components analysis of expectations ratings revealed seven components with eigenvalues greater

than 1.00, an examination of the scree plot suggested a three-component solution. Therefore, three components accounting for 37.9% of the variance were extracted and rotated to a varimax criterion. Items with loadings greater than .40 were selected to create the composite measures of expectations. We then eliminated those items that were found to reduce the alpha coefficients on the expectations measures. Finally, we created commensurate measures of experiences with the corresponding experience items. The items selected for inclusion in these composite measures are presented in Table 2. These variables were labelled *comfort* (i.e., reflecting the degree to which individuals expect to experience comfortable working conditions; coefficient alphas = .69 for expectations, and .56 and .65 for experiences at 1 and 6 months, respectively), *reward* (i.e., reflecting the degree to which individuals expect to receive both intrinsic and extrinsic rewards on the job; coefficient alphas = .70 for expectations, and .80 and .81 for experiences at 1 and 6 months, respectively), and *responsibility* (i.e., reflecting the degree to which individuals expect to occupy an important role in the organization; coefficient alphas = .70 for expectations, and .71 and .78 for experiences at 1 and 6 months, respectively). The means, standard deviations, correlations, and reliabilities of the study variables are reported in Table 3.

### *Correlations of Met-Expectations Indexes With Work Adjustment*

We calculated correlations between the met-expectations indexes (i.e., difference scores) and organizational commitment, job satisfaction, and turnover intentions for each of the three predictor variables identified in the principal-components analysis across all (1- to 6-month, 1- to 12-month, and 6- to 12-month) time lags for a total of 27 ( $3 \times 3 \times 3$ ) correlation co-

efficients. Eighteen of the 27 zero-order correlations were significant. Controlling for expectations did not have a substantial impact on the magnitude of these correlations. However, after controlling for experiences, only two correlations remained significant. One of these was the correlation between the difference score involving comfort-related experiences at 1 month and job satisfaction at 6 months; the other was the correlation between the difference score involving responsibility-related experiences at 6 months and turnover intentions at 12 months. The zero-order and first-order partial correlations (controlling for experiences) between the difference score measures of met expectations and work adjustment measures are reported in Table 4. Overall, these results suggest that difference scores contribute little information beyond that provided by their components, particularly experiences.

### *Response Surface Analyses*

We conducted separate regression analyses for each combination of the three outcome variables (organizational commitment, job satisfaction, and turnover intentions), three pairings of commensurate work expectation and experience measures (comfort, reward, and responsibility), and three time lags (1 to 6 months, 1 to 12 months, and 6 to 12 months).

*Organizational commitment.* The results of the response surface analyses using organizational commitment as the dependent variable are reported in Table 5. The pattern of significant regression coefficients is similar across all three sets of predictors. With the exception of the comfort-related experience variables measured at 1 month, the regression coefficients for the experience variables were large and significant, whereas none of the regression coefficients for the expectations variables were significant. Furthermore, with one exception (the quadratic term for the reward expectations in the prediction of commitment at 12 months from experiences at 6 months), none of the higher order terms were significant. This pattern of results supports the experiences main-effect model.

*Job satisfaction.* The results of the response surface analyses using job satisfaction as the dependent variable are reported in Table 6. In this case, the pattern of significant regression coefficients differs across the three sets of predictors. For the comfort variable, the pattern of regression coefficients appears to support the predictions of the algebraic difference model (see Figure 2a). However, the only instance in which both regression coefficients were significant and accounted for a significant proportion of the variance in job satisfaction was early in the post-entry period (predicting job satisfaction at 6 months from experiences at 1 month). For the reward and responsibility variables, the pattern of significant regression coefficients more closely resembles the experience main-effect model. That is, the only significant regression coefficients were those for the experience variables. The lone exception to this was a significant negative regression coefficient for the quadratic experience term when predicting job satisfaction at 6 months from responsibility-related experiences at 1 month. Early in one's tenure, these responsibility experiences appear to increase job satisfaction to a certain point beyond which such experiences have a negative effect on satisfaction levels (see Figure 2b).

Table 2  
*Items Defining the Expectations and Experiences Measures*

<b>Comfort</b>	
	Provides job security
	Permits a regular routine in time and place of work
	Has clear-cut rules and procedures to follow
	Provides ample leisure time off the job
	Provides comfortable working conditions
<b>Reward</b>	
	Encourages continued development of knowledge and skills
	Is intellectually stimulating
	Provides a feeling of accomplishment
	Provides the opportunity to earn a high income
	Is respected by other people
	Permits you to work for superiors you admire and respect
	Rewards good performance with recognition
<b>Responsibility</b>	
	Gives you responsibility for taking risks
	Permits you to develop your own methods of doing the work
	Requires working on problems of central importance to the organization
	Makes a social contribution by the work you do
	Provides change and variety in duties and activities
	Requires originality and creativeness
	Satisfies your cultural and aesthetic interests
	Permits working independently

Table 3  
Means, Standard Deviations, Reliabilities, and Correlations Among the Measures

Measure	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Correlations and reliabilities															
Time 1. Preentry Expectations															
1. Comfort	(.69)														
2. Reward	-.12	(.70)													
3. Responsibility	.24**	.47**	(.70)												
Time 2. Postentry (1 month) Experiences															
4. Comfort	.67**	-.10	.19*	(.56)											
5. Reward	-.08	.59**	.32**	.12	(.80)										
6. Responsibility	.04	.42**	.61**	.18*	.55**	(.71)									
Time 3. Postentry (6 months) Experiences															
7. Comfort	.53**	-.09	.10	.65**	.01	.09	(.65)								
8. Reward	-.18*	.54**	.21*	.02	.66**	.45**	.14	(.81)							
9. Responsibility	-.04	.34**	.46**	.10	.37**	.65**	.15	.60**	(.78)						
Work adjustment															
10. Job satisfaction	-.01	.29**	.15	.25**	.37**	.33**	.34**	.61**	.49**	(.87)					
11. Organizational commitment	.14	.28**	.18*	.29**	.45**	.36**	.43**	.61**	.49**	.64**	(.83)				
12. Intention to leave	-.09	-.14	-.08	-.25**	-.20*	-.21*	-.31**	-.44**	-.36**	-.61**	-.55**	(.97)			
Time 4. Postentry (12 months) Work adjustment															
13. Job satisfaction	-.00	.25**	.15	.19*	.28**	.33**	.29**	.49**	.41**	.66**	.43**	-.51**	(.89)		
14. Organizational commitment	.12	.31**	.28**	.28**	.39**	.41**	.40**	.51**	.39**	.49**	.74**	-.49**	.62**	(.86)	
15. Intention to leave	.00	-.06	-.05	-.15	-.19*	-.24**	-.17*	-.32**	-.27**	-.40**	-.39**	.51**	-.54**	-.56**	(.95)
Means and standard deviations															
M	3.53	3.60	3.59	3.61	3.66	3.71	3.51	3.55	3.57	5.21	4.14	2.69	5.08	4.04	3.47
SD	0.51	0.49	0.50	0.55	0.60	0.57	0.55	0.64	0.59	1.34	1.12	1.98	1.44	1.16	2.13

Note. Ns range from 128 to 136 because of missing data. Scale reliabilities are in parentheses along the diagonal.

\*  $p < .05$ . \*\*  $p < .01$ .

Table 4  
Zero-Order and First-Order Partial Correlations Between Difference Score Measures of Confirmed Expectations and Organizational Commitment, Job Satisfaction, and Intention to Leave

Measure	Experiences measured at 1 month			Experiences measured at 6 months		
	Comfort	Reward	Responsibility	Comfort	Reward	Responsibility
Organizational commitment						
6 months	-.09	-.29**	-.34**			
	<b>-.04</b>	<b>-.03</b>	<b>-.11</b>			
12 months	-.07	-.25**	-.22*	-.19*	-.38**	-.28**
	<b>-.04</b>	<b>.00</b>	<b>.04</b>	<b>-.10</b>	<b>-.00</b>	<b>-.00</b>
Job satisfaction						
6 months	-.27**	-.21*	-.23**			
	<b>-.27**</b>	<b>.11</b>	<b>-.11</b>			
12 months	-.15	-.20*	-.17	-.18*	-.45**	-.32**
	<b>-.15</b>	<b>.05</b>	<b>-.03</b>	<b>-.14</b>	<b>.01</b>	<b>-.12</b>
Intention to leave						
6 months	.12	.24**	.09			
	<b>.12</b>	<b>.07</b>	<b>.07</b>			
12 months	.05	.28**	.16	.06	.40**	.28**
	<b>.04</b>	<b>.10</b>	<b>.07</b>	<b>.06</b>	<b>.14</b>	<b>.16*</b>

Note. Values in bold represent correlations between difference score measures of confirmed expectations and dependent variables after experiences have been partialled out.

\*  $p < .05$ . \*\*  $p < .01$ .

*Intention to leave.* The results of the regression analyses with intention to leave as the dependent variable are reported in Table 7. It appears that comfort-related experiences do not have any significant impact on intentions to leave an organization. The pattern of relations for the reward and responsibility variables differ from the comfort variables and from each other. Responsibility experiences appear to have a curvilinear effect on intentions to leave (see Figure 2c). Responsibility experiences decreased intentions to leave the organization up to a

point beyond which they increased participants' intentions to leave. Reward experiences had a strong negative impact on intentions to leave for all three time lags, whereas responsibility experiences predicted intentions to leave only in the analyses involving intentions at the end of the first year.

### Discussion

Of the models tested in this study, the strongest support was obtained for the experience main-effect model. We obtained

Table 5  
Response Surface Analysis of Relations Between Expectations, Experiences, and Organizational Commitment

Variable	Org. commitment at 6 months from experiences at 1 month			Org. commitment at 12 months from experiences at 1 month			Org. commitment at 12 months from experiences at 6 months		
	Comfort	Reward	Respon.	Comfort	Reward	Respon.	Comfort	Reward	Respon.
Step 1									
Expectations	-.11	-.21	-.26	-.10	.00	.02	-.23	.00	.04
Experiences	.32	.88**	.95**	.30	.89**	.72**	.52**	.89**	.78**
$\Delta R^2$	.03	.16**	.22**	.02	.20**	.16*	.06*	.27**	.21**
Step 2									
Expectations <sup>2</sup>	.12	.09	.15	.22	-.25	-.05	-.11	-.66*	-.27
Experiences <sup>2</sup>	-.11	-.39	-.38	.15	-.44	-.19	-.35	.27	-.37
Expect $\times$ Exper	-.01	-.19	-.24	-.17	-.34	-.30	.66	-.01	.14
$\Delta R^2$	.00	.02	.06*	.01	.05*	.05	.03	.04	.04
Total $R^2$	.03	.18**	.28**	.03	.25**	.21**	.09*	.31**	.25**
F	0.78	5.56**	9.79**	0.75	8.10**	6.56**	2.40*	10.95**	7.83**
df	126	125	124	122	121	120	123	120	119

Note. The work expectations and work experience variables were centered prior to analysis. Org. commitment = organizational commitment; Respon. = responsibility; Expect = expectations; Exper = experiences.

\*  $p < .05$ . \*\*  $p < .01$ .



Table 6

*Response Surface Analysis of Relations Between Expectations, Experiences, and Job Satisfaction*

Variable	Job satisfaction at 6 months from experiences at 1 month			Job satisfaction at 12 months from experiences at 1 month			Job satisfaction at 12 months from experiences at 6 months		
	Comfort	Reward	Respon.	Comfort	Reward	Respon.	Comfort	Reward	Respon.
Step 1									
Expectations	-.75**	.25	-.24	-.43	.31	-.15	-.44	.04	-.31
Experiences	.75**	.96**	.77**	.43	.96**	.62**	.50**	1.31**	.93**
$\Delta R^2$	.08**	.22**	.10**	.02	.21**	.06*	.04	.39**	.14**
Step 2									
Expectations <sup>2</sup>	.24	-.11	-.20	-.06	-.44	-.12	-.16	-.57	-.17
Experiences <sup>2</sup>	-.33	-.66	-.94**	-.40	-.77	-.58	-.25	-.04	-.50
Expect $\times$ Exper	.28	.22	.93	.73	.53	.14	.84	.28	.13
$\Delta R^2$	.03	.03	.06*	.02	.03	.05	.03	.01	.04
Total $R^2$	.11**	.25**	.16**	.04	.24**	.11**	.07	.40**	.18**
F	2.97*	8.13**	4.55**	1.13	7.50**	2.94*	1.80	16.26**	5.12**
df	124	123	122	123	122	121	124	121	120

Note. The work expectations and work experience variables were centered prior to analysis. Respon. = responsibility; Expect = expectations; Exper = experiences.

\* $p < .05$ . \*\* $p < .01$ .

limited support for the met-expectations hypothesis and no support for the expectations main-effect or moderation models. Thus, it appears that, for the most part, job satisfaction, organizational commitment, and turnover intentions are influenced by employees' early work experiences independent of the preentry expectations.

On the basis of the outcome of their meta-analysis, Wanous et al. (1992) suggested that confirmed expectations are related to positive work attitudes and decreased turnover intentions. By implication, they suggested that organizations might improve the likelihood of positive work adjustment by reducing initial expectations. In contrast, our findings provided greater support for the experience main-effect model than for the met-expectations hypothesis. Consequently, it appears from our findings that meeting employees' expectations concerning various aspects of the job may be less important than providing positive work experiences regardless of their expectations. As Wanous (1980) has suggested elsewhere, there is no substitute for good working conditions. Although one would normally be inclined to place more faith in the results of a meta-analysis than those of a single study, as noted earlier, methodological problems inherent in many of the studies reviewed by Wanous et al. limit their interpretability, whether considered individually or cumulatively. In our study, we used a methodology suggested by Edwards (1991) as a means of overcoming these methodological problems. The fact that the findings and implications of our study are different from those of Wanous et al. suggests, at the very least, that further research is warranted.

It should be noted that our findings do not suggest that organizations should not use RJPs. To the contrary, we believe that organizations are ethically obligated to provide accurate information to job applicants and that the use of RJPs may indeed have positive effects on work attitudes and intentions to remain, albeit through mechanisms other than reduced expectations (e.g., by increasing perceptions of honesty; cf. Wanous, 1980,

1992; Breaugh, 1983). What our findings suggest is that it may not be advisable to use RJPs merely as a means of lowering expectations to reduce reality shock. Undesirable work experiences may have a negative impact on attitudes and intentions even when they are expected.

Although generally strong, support for the experience main-effect model varied as a function of (a) the experience measure, (b) the time lag, and (c) the outcome variable. The strongest support for the experience main-effect model was found for the reward variable in the prediction of organizational commitment and job satisfaction. Of note was the fact that several significant quadratic terms were found for responsibility-related experiences. Although these findings are consistent with the experience main-effect model, it appears that some relations between experiences and work adjustment indexes are nonlinear. Responsibility-related experiences contributed positively to work adjustment up to a point, beyond which negative relations were found between experiences and work adjustment. Thus, in some cases, it is possible to have too much of a good thing.

Several other findings of the present study also warrant some discussion. First, it is noteworthy that experiences at 6 months generally accounted for a larger proportion of variance in the outcome measures at 12 months than experiences at 1 month accounted for in outcomes measured at 6 months. It may be that individuals have to be on the job for a period of time before they can assess their experiences with any certainty. It is also noteworthy that the relative amount of variance accounted for by the different job-content dimensions varied as a function of the dependent measure. Reward-related experiences contributed much more to the variability in job satisfaction than did responsibility-related experiences. Conversely, these differences were much smaller when organizational commitment was the dependent variable. It is not immediately obvious why this difference occurred, but one possibility is that work experiences will have the greatest impact on attitudes toward the entity to

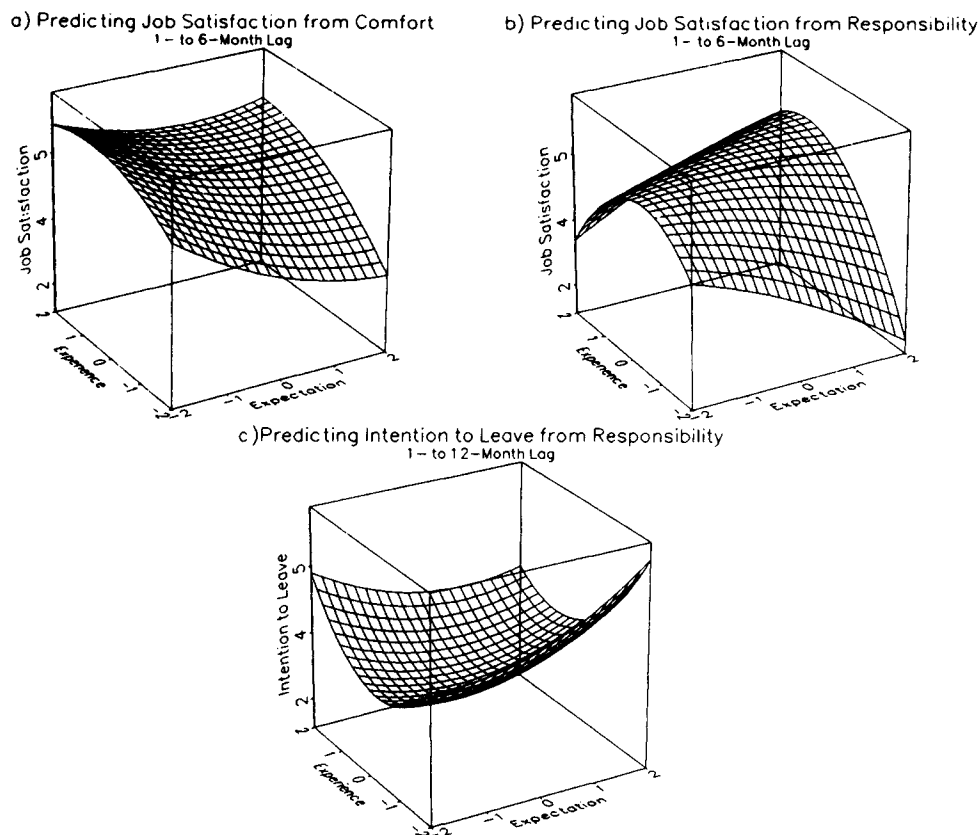


Figure 2. Sample response surfaces for relations of expectations and experiences to job satisfaction and turnover intention.

which they are attributed (cf. Meyer & Allen, 1991). From Table 2 we can see that the characteristics that form the responsibility composite measures (e.g., permits you to develop your own methods of doing work, gives you responsibility for taking risks) are likely to be under the control of the organization, whereas those characteristics that form the rewards composite measure (e.g., is intellectually stimulating, provides a feeling of accomplishment) may be seen as due to the nature of the job. Consequently, reward experiences would be expected to have a greater impact on attitudes toward the job than would responsibility experiences. Responsibility-related experiences, alternatively, should be attributed to the organization and therefore affect organizational commitment. The fact that reward-related experiences also influence organizational commitment might be due to the fact that the organization is at least in part responsible for the jobs it provides. This attributional explanation is, of course, speculative and needs to be tested in subsequent research.

We found support for Porter and Steers's (1973) met-expectations hypothesis only in the case of comfort. The fact that support was found for comfort-related experiences is somewhat surprising because Porter and Steers suggested that it is for those job factors that are most important that confirmation of expectations should have its greatest impact on work adjustment. In the preentry questionnaires completed by participants in our study, we asked them

to rate the importance of the 25 job characteristics on a 5-point scale (1 = *unimportant* and 5 = *very important*). Their responses indicated that comfort experiences were less important than reward and responsibility (comfort  $M = 3.05$ , responsibility  $M = 3.47$ , reward  $M = 4.20$ ). Thus, it does not appear that importance of the job characteristic determines whether confirmation of expectations is related to work adjustment. Rather, it might be that confirmation of expectations is most strongly related to work attitudes and turnover intention for job characteristics that are more verifiable. The items that loaded on the comfort dimension are also those that are more likely to be objectively addressed by an employer prior to organizational entry. Consequently, it might be easier for newcomers to an organization to assess the degree to which their expectations regarding these job characteristics have been met early in their tenure. In contrast, it is noteworthy that reward experiences were the most valued by our sample, and that, with one exception (predicting organizational commitment at 6 months from experiences at 1 month), the reward variable always accounted for the largest proportion of variance in the dependent variables. Thus, it might be that employees' responses to the job and the organization are influenced primarily by whether or not they experience those job characteristics that are most important to them, not whether their expectations regarding these characteristics are confirmed.

Table 7  
*Response Surface Analysis of Relations Between Expectations, Experience, and Intention to Leave*

Variable	Intention to leave at 6 months from experiences at 1 month			Intention to leave at 12 months from experiences at 1 month			Intention to leave at 12 months from experiences at 6 months		
	Comfort	Reward	Respon.	Comfort	Reward	Respon.	Comfort	Reward	Respon.
<b>Step 1</b>									
Expectations	.37	.21	.17	.26	.49	.51	.21	.44	.65
Experiences	-.63	-1.42**	-.55	-.29	-1.65**	-.83*	-.25	-1.58**	-1.13**
$\Delta R^2$	.02	.14**	.02	.00	.15**	.04	.00	.21**	.08**
<b>Step 2</b>									
Expectations <sup>2</sup>	-.33	1.14	-.02	-.43	.14	.72	.72	1.12	.50
Experiences <sup>2</sup>	.33	.33	.86	-.81	-.19	1.41**	1.36**	.79	.90*
Expect $\times$ Exper	.01	-.10	-.17	.98	1.97	-.88	-2.03*	-.48	-.15
$\Delta R^2$	.02	.04	.05	.01	.05*	.11**	.07	.05*	.08*
Total $R^2$	.04	.18**	.07	.01	.20**	.15**	.07	.26**	.16**
$F$	0.83	5.62**	1.91	0.44	6.11**	4.18**	1.98	8.40**	4.63**
$df$	127	126	125	123	122	121	124	121	120

Note. The work expectations and work experience variables were centered prior to analysis. Respon. = responsibility; Expect = expectations; Exper = experiences.

\*  $p < .05$ . \*\*  $p < .01$ .

One possible reason for the weak support for the met-expectations hypothesis in this study might be that the expectations of those individuals in our sample were largely met. (Note that the means for the expectations and experiences variables were quite similar.) If this is the case, we should find very little variability in the range of difference scores (i.e., experiences at 1, 6, and 12 months subtracted from expectations) for the three predictor variables. We, therefore, examined the variability in these difference scores and found that the average standard deviation across measures and time lags was .52. An examination of the ranges revealed that the expectations of some individuals were unmet, whereas the expectations of others were exceeded. On the basis of these findings, we concluded that the weak support for the met-expectations hypothesis in this study cannot merely be attributed to a lack of disconfirmed preentry expectations.

We found no support for the negative moderation model in the present study. One interpretation for this finding is that preentry expectations simply do not moderate the influence of postentry work experiences on work attitudes and turnover intentions. Conversely, it may be that our analytic procedures were not sensitive enough to detect moderating effects. The difficulty in detecting significant moderator effects in field research is well documented (cf. McClelland & Judd, 1993). However, in a related study in which work values replaced expectations as the preentry individual difference variable, Meyer, Irving, and Allen (1993) found a number of significant moderator effects. Thus, although it cannot be ruled out, the power explanation for failure to find moderator effects seems less probable.

The advantages of the use of response surface methodology to investigate the joint impact of person and environment variables, whether it be in the context of P-J fit or met-expectations effects, can be illustrated by our findings. First, a comparison of the zero-order and partial correlations involving difference scores and measures of work adjustment illustrate the problems

with the use of such indexes (e.g., Cronbach & Furby, 1970; Edwards, 1991; Johns, 1981). In most instances, these indexes contributed little information beyond that provided by their components. Despite the fact that there were a large number of significant correlations between the algebraic difference score measures of met expectations and work adjustment, only two significant correlations remained after partialing out the effects of experiences. Interestingly, one of these correlations (i.e., between the confirmed expectations index for comfort measured at 1 month and job satisfaction measured at 6 months) corresponded to the one instance in which we found support for the algebraic difference model with response surface methodology. These findings suggest that the use of difference score measures can result in misleading conclusions concerning the effects of met expectations on work adjustment and emphasizes the importance of using a methodology that allows for an examination of the separate and joint effects of expectations and experiences on work adjustment.

A second revealing finding results from the comparison of the zero-order correlations between the predictor and outcome variables (see Table 3) with the regression coefficients obtained in the first step of the hierarchical regression analysis (see Tables 5, 6, and 7). For example, in the analysis involving the reward variable, the zero-order correlation between expectations and organizational commitment is significantly positive, whereas the regression coefficient is nonsignificant. This suggests that the positive relation between reward-related expectations and commitment is mediated by experience (i.e., those with higher expectations actually have more positive experiences). In another case, the correlation between expected comfort and job satisfaction is zero, whereas the regression coefficient is significantly negative. This suggests that the expectation is acting as a suppressor variable in the prediction of job satisfaction (see Pedhazur, 1982; Wiggins, 1973). In both of these cases, the results of the regression analysis provide a more accurate account

of the relations between expectations and outcomes than do the zero-order correlations. Thus, including both expectations and experiences in the regression equation might enhance the predictability of outcome variables.

The generalizability of our findings are limited somewhat by the nature of our sample (university graduates and MBAs) and by our choice of expectations and experiences measures. With regard to the former, it is possible that the impact of reward- and responsibility-related experiences on work adjustment may be due to the salience of these concerns for our highly educated sample. Confirmation of expectations for other job characteristics may be more important in other samples. As for our choice of measures, it remains to be determined whether the impact of met expectations would have been different if another categorization and operationalization of job characteristics had been used. Future research might investigate the effect of confirmed expectations with another set of job characteristics.

Another potential limitation of this study concerns the way in which we measured expectations. We asked respondents to indicate the likelihood that their job would provide each of the 25 job characteristics. For the experiences measure, the respondents were asked to indicate the extent to which the 25 job characteristics were present on the job. Although some respondents might have interpreted likelihood to mean the amount of the job characteristic they expected to receive, others might have interpreted it as the likelihood that the job characteristic is either present or absent on the job. Only in the former case would our measures of expectations and experience be truly commensurate (i.e., in content and scale). In future research, it might be advisable to measure expectations as the perceived amount of each job characteristic, although it might be informative also to investigate the influence of differing scale formats (cf. Edwards, 1991).

### Summary and Conclusions

The results of previous research investigating the effect of confirmed expectations on work attitudes and behavior may be misleading because of methodological limitations. In this study, we used response surface methodology (cf. Edwards, 1991) on longitudinal data to examine the joint and separate effects of preentry expectations and postentry experiences on organizational commitment, job satisfaction, and turnover intentions. In doing so, we were able to avoid the problems inherent in the commonly used indexes of met expectations (e.g., difference scores, measures that collapse across constructs, and direct measures of met expectations).

Our findings provided very little support for the met-expectations hypothesis. Only in the case of comfort-related job characteristics measured at 1 month used to predict satisfaction at 6 months did the pattern of regression coefficients correspond to that predicted by the met-expectations hypothesis. In all other cases where the predictor variables accounted for a significant proportion of the variance in the outcome variables, the results supported the experiences main-effect model. That is, postentry work experiences alone contributed significantly to the prediction of job satisfaction, organizational commitment, and turnover intentions. Our results suggest that organizational

efforts should focus on providing new recruits with positive work experiences rather than on confirming their preentry expectations. This study illustrated the potential benefits of applying response surface methodology to the investigation of the effects of met expectations and, therefore, might serve as a framework for future research.

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